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ORIGINAL ARTICLE

Making a difference: On the constraints of consensus building and the relevance of deliberation in stakeholder dialogues

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Abstract This article illuminates the contribution of stakeholder dialogues to environmental policy making. It makes a distinction between stakeholder dialogues as *consensus building* and stakeholder dialogues as *deliberation*. Although consensus building seems to be the dominant approach in participatory environmental policy making, this article questions the merits of consensus building and it uses the experience of the Dutch stakeholder dialogue project Climate OptiOns for the Long term (COOL) to explore, in a deliberative design, the shortcomings of a consensus-building approach and how they are possibly dealt with. The article presents the results of two deliberative methods that have been used in the COOL project – the repertory grid analysis and the dialectical approach – to demonstrate how a deliberative design can help policy makers to critically assess arguments in favor of and against a broad range of policy options, and deal with stakeholder conflict in an early phase of the policy process.

Keywords Stakeholder dialogue · Deliberation · Climate change · Consensus building · Repertory grid · Dialectical approach

The rationale of stakeholder dialogues

In many policy areas, and in many countries, participation of actors from society in policy making has become common practice. Participation can take place in different forms and at different levels (see Arnstein, 1969; Mayer, 1997). For instance, societal actors are involved in rule-making processes in which they have actual decision-making authority. They also operate as advisors by sitting on boards of decision-making bodies. A bit more distant from the political decision-making process, societal actors are involved in processes of knowledge generation. In all cases, the involvement of actors from society is expected to deliver a useful contribution to the policy-making process because it can help to mobilize the specific (local) expertise that these actors have; it can improve awareness and support for specific policy

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measures; it can enhance the legitimacy of the decisions taken; it may help to build new networks and coalitions, et cetera.

In this article, stakeholder participation in environmental policy making refers to the facilitation of dialogue processes in which stakeholders, together with actors from science and policy, jointly discuss and deliberate on a specific complex policy issue and explore potential solutions to this issue, so as to formulate policy recommendations (see also Van de Kerkhof and Wieczorek, 2005). The ultimate decisions with regard to policies and measures are seen as matters of political choice, and therefore, the main aim of stakeholder dialogues should be to provide insights that enable policy makers to make political choices in an argued and informed fashion. This article does not investigate other potential benefits of a stakeholder dialogue process such as building trust, increasing public awareness, et cetera. Also, 'low' levels of participation, like the distribution of brochures and leaflets and the organization of information meetings, are not included in this article's considerations.

Before anything else, we must clarify by what we mean by 'stakeholder'. Usually, stakeholders are referred to as actors from society who have an interest (a stake) in a specific policy issue (see Renn et al., 1993; Von Winterfeldt, 1992; Mason and Mitroff, 1981). It concerns companies, NGOs, and individual citizens. This article makes a distinction between stakeholders, scientists, and governmental policy makers/politicians. This is mainly a theoretical distinction, for in practice – in particular in the case of complex, wicked, problems with many scientific uncertainties and different interests at stake – it is often not clear what separates the scientists, the policy makers, and the politicians from the other stakeholders. They all have their own agendas and interests in the problem and in the solutions to this problem.

In order to better understand the meaning of the term, stakeholder, it is useful to distinguish between three characteristics of a stakeholder (Van de Kerkhof, 2004). The first is that stakeholders can be either individuals or organized groups. The second is that it is not always clear what the stake(s) of each actor is (are). Different actors may have a different perception of their own and each other's stakes, and these stakes may change over time. The last characteristic is that the relevant group of stakeholders may vary. The number of stakeholders involved in a certain issue is not necessarily fixed but may change over time. As the policy process evolves, new stakeholders will enter the scene and others will leave.

The attention for stakeholder participation has increased markedly in recent decades, in both science and policy. There are a number of factors that have driven this. In part, it is the result of disillusionment with the power of scientific knowledge to rationalize the decision-making process (Beck, 1992) and, as a consequence, a more sober reassessment of the role of science in policy (Ezrahi, 1980; Jasanoff, 1990) and greater appreciation of the role that stakeholder knowledge may play in improving decisions (Fisher, 2000). Also, the rise of participation is the result of the fact that contemporary society is characterized by a high level of education and citizens have become more critical and have their own knowledge and ideas about the issues that society has to deal with (citizens' science – Irwin, 1995). Another factor that gives rise to stakeholder participation is the call for more democracy in the political process in order to improve decision making in terms of its legitimacy (see the literature on deliberative democracy by Bohman and Regh, 1997; Dryzek, 2000; Fung and Wright, 2001; Laird, 1993).

In particular in the environmental field, the focus on participation is salient due to strong emphases on technological solutions, high uncertainties and risks, long time and large spatial scales, diversity of conflicting views and interests, and international dependencies (Mason and Mitroff, 1981). Coping with the complex environmental problems is not perceived as the responsibility of governments alone, but as an international joint challenge for science, policy and society (Thompson Klein et al., 2001).

In the literature on public policy, *consensus building* is generally considered to be the main objective of stakeholder participation in policy making, especially in the United States (see e.g. Susskind and Field, 1996; Ozawa, 1991). In consensus-building processes, stakeholder dialogues seek to develop joint policy recommendations that meet the needs of all stakeholders involved in the process. Although consensus building is the dominant approach in environmental policy making, a key question is whether it actually is the best alternative to traditional (non-participatory) policy making (see also Coglianese, 2001; Gregory et al., 2001).

This article questions the merits of stakeholder dialogues as processes of consensus building. It explores the constraints of consensus that can be found in the literature, and it uses the experience of a Dutch stakeholder dialogue project on climate change to explore how an orientation on deliberation rather than consensus can possibly deal with these constraints and improve the contribution of stakeholder dialogues to environmental policy making.

This article is structured as follows. Section 2 discusses the dialogue approach as a process of consensus building and presents purported benefits and shortcomings of the approach presented in the existing literature. Section 3 presents an alternative approach for a stakeholder dialogue process, which focuses on deliberation and argumentation. Section 4 introduces the Dutch project Climate OptiOns for the Long term (COOL) and explains the deliberative elements in the design of this project. Section 5 elaborates in particular on two deliberative methods that have been used in the COOL dialogues, the repertory grid method and the dialectical approach. Section 6 evaluates the outcomes of these methods in the COOL dialogues and it illuminates how the methods actually encouraged the deliberative process. Section 7 draws conclusions and speculates on how the deliberative design of the COOL project might have led to a more useful contribution to environmental policy making than a consensus-building approach would have done.

Promises and constraints of dialogues as consensus building

In the field of conflict resolution, negotiated rule making, and collaborative problem solving, stakeholder dialogues are viewed as processes of consensus building (see e.g. Susskind and Field, 1996; Susskind et al., 2003; Ozawa, 1991). Lawrence Susskind (1999: 6) defines it as: "a process of seeking unanimous agreement. It involves a good-faith effort to meet the interests of all stakeholders. Consensus has been reached when everyone agrees they can live with whatever is proposed after every effort has been made to meet the interests of all stakeholder parties".

Environmental policy makers often tend to build consensus before making decisions. This is a common approach in the United States where the desire for consensus was institutionalized in the Negotiated Rulemaking Act of 1990, in which agencies are authorized to establish formal negotiation processes over the terms of proposed regulations (Coglianese, 2001). But also in other countries a consensus approach is often considered most favorable. In the Netherlands, for instance, environmental policy is characterized by the 'green polder model' approach[1] (Glasbergen, 2002), in which multi-stakeholder processes have become institutionalized in an early stage of environmental policy making.

[1] A polder is man-made land that has been reclaimed from the sea. The Netherlands largely consists of such man-made land and taking on a project as ambitious as the making of a polder requires a strong governing authority and a habit of co-operation and consultation. It is these twin attributes that lie at the heart of the 'polder model,' the popular name for the Dutch practice of policy making by consensus among government, employers and trade unions. The habit of negotiation and discussion with all relevant parties has also found its place in the environmental policy field in the Netherlands. This can be referred to as the 'green polder model.'

The consensus-building approach has a number of purported instrumental advantages over formal (non-participatory) policy-making procedures. It claims to: reduce conflict, increase compliance, improve policy, prevent litigation, and promote public participation (Susskind and Cruikshank, 1987; Harter, 1982 – referred to in Coglianese, 2001). Involving stakeholders and reaching a mutual agreement among them is assumed to decrease the chance that they will not comply with the policies that result from the process or and that they will go to court to fight against the proposed policies. A consensus-building approach also claims to have a number of secondary effects such as: building new relationships and trust, creating new partnerships and organizations, and establishing joint learning (Innes, 1999).

According to Coglianese (1997: 1258), such claims notwithstanding, the value of consensus building has more often been asserted than demonstrated. Coglianese studied several consensus processes in the United States and concludes from these that, for each advantage attributed to consensus building, the same benefits can come from something other than a quest for consensus. He also argues that a consensus orientation tends to lead to outcomes that focus on the most tractable, and often least important, problems; rely on agreement over imprecise or general principles rather than on concrete operational results; and reflect what amounts to a lowest common denominator of all the participating interests. In other words: in consensus-building processes the ultimate goal shifts away from reaching a quality decision and moves it towards reaching an agreeable one (Coglianese, 1999: 4). One of the reasons for this is that there is little in the consensus-building approach that distinguishes premature consensus, in which important issues or facts are ignored and important differences in values are suppressed, from a true consensus, in which all the participants find a new option that they all value more than the one option they preferred when entering the process (Gregory et al., 2001). In this respect, there is another serious criticism to a consensus orientation, which is that it may lead to a bias in the selection of participants, as it runs the risk of mainly attracting stakeholders who are willing to, and who benefit from, reaching a consensus, and discouraging more skeptical stakeholders who feel they may be forced into a consensus they do not like (Coglianese and Allen, 2004; Coglianese, 2001). Another criticism is that a consensus orientation will not work in problem situations where the stakeholders have different axioms, assumptions and concepts with regard to the problem under consideration (Smith, 1995).

An alternative approach: Dialogues as deliberation

Whereas consensus building can be characterized as a process of negotiation, deliberation is about dialogue and argumentation. The idea of deliberation originates from Habermas (1970) and his work on the conditions for the 'ideal speech situation'. Deliberation refers to a process of argumentation and communication in which the participants engage into an open process in which they exchange opinions and viewpoints, weigh and balance arguments, and offer reflections and associations (Renn, 2004; Dryzek, 2000; Webler, 1995). The importance of deliberation relates to the importance of *problem definition*. A serious drawback of the consensus-building approach is that it seems to be based on the assumption that the participants in a dialogue process know what the problem is, know exactly what their own stakes are, and are aware of the different positions of the other stakeholders that are involved in the process. Unknown to the participants, according the consensus-building concept, is how to deal with one another's different positions so as to solve the problem. However, in particular in the case of environmental complexity, Stakeholders may not be aware of each

other's positions and of the assumptions on which these positions are based. Moreover, they may not even have a clear idea of their own position and underlying assumptions. In order to increase the understanding of problems of environmental complexity, these positions and assumptions need to be elicited before one can actually find proper solutions to the problems. The focus on deliberation helps to prevent relevant (stakeholder) information from being excluded from the analysis and, as a consequence, the dialogue process from generating a wrong (limited) perception of the problem. This becomes even more important when one realizes that problem definition and problem solving are closely connected. The actual construction of a problem already points to its perceived solution and, in that way, sets the alternatives for policy (Dunn, 1988).

In order to facilitate a stakeholder dialogue as a process of deliberation, a variety of methods can be used to help the dialogue to articulate rival views as well as the assumptions underlying these views. Two such methods, repertory grid and the dialectical approach, will be discussed later on in this article and are applied to a case (Section 4). Other methods that can be used to articulate rival views and underlying assumptions are for example: value-focused thinking (Arvai and Gregory, 2003; Gregory et al., 2001; Keeney, 1994), Q Methodology (Brown, 1986; Webler et al., 2001), and Semantic Differential (Osgood et al., 1957; Heise, 1970). It goes beyond the scope of this article to go into the details of these methods, but we will give a short description of the methods to illustrate how they work.

The rationale of value-focused thinking is that values, and not alternatives, should be the driving force for policy making. Therefore, value-focused thinking starts by working with stakeholders to identify a small set of objectives that are important in selecting an alternative. These objectives frequently are displayed in terms of a hierarchy (e.g. a value tree) or in terms of the relationship between end objectives (what really matters in the context of this decision) and means objectives (what matters because of its influence on a more fundamental objective). Next, value-focused thinking looks at the implications of these objectives for the creation of alternatives in order to explore what options can be constructed to best achieve the objectives. In this way, the method encourages the deliberative process by uncovering hidden objectives, enhancing the coordination of interconnected decisions and, ultimately, by generating (new) better alternatives for the problem concerned (Keeney, 1994).

Q Methodology is another potentially practicable method as it helps to uncover people's patterns of beliefs, and to identify the prevailing views that people have with regard to a certain matter (option, alternative, decision, et cetera). Unlike most survey methods, which ask respondents to express a view on isolated statements, in a Q Methodology approach, the respondents react to statements in the context of all the other statements that are included in the dialogue on a specific matter, and they also rank each statement in relation to the others (Webler et al., 2001). The facilitator of the Q Methodology approach identifies a concourse of statements from which the sample of statements will be drawn. The respondents are asked to sort all the statements according to what they perceive to be most important and least important with regard to the matter at hand. The results can be analyzed by means of factor analysis and the outcomes can be fed into the stakeholder dialogue process.

Semantic Differential is another method for elicitation that aims to measure people's attitudes (and attitude change) and to shed more light on the links between attitudes and behavior. Basically, the method plots the differences between individuals' perceptions of connotations for words and thus maps the psychological 'distance' among words. The facilitator of the Semantic Differential approach gives the respondents a word and presents a variety of adjectives to describe it. The adjectives are presented at either end of bipolar scales and the respondents are asked to put the word that is given to them on the bipolar scales. The maps

that result from the Semantic Differential exercise must be analyzed, and the outcomes of this can be fed into the stakeholder dialogue process.

As the short descriptions of these three methods make clear, they have in common that they aim to facilitate the elicitation of underlying values, attitudes and assumptions that people hold with regard to a certain problem or option, but in different ways. In the next sections two other deliberative methods will be explored further to see how they have actually contributed to the better understanding of options that are available to reduce emissions of carbon dioxide, which was the main topic in the COOL dialogues.

The case: A stakeholder dialogue on climate policy

The consensus criticisms that were presented in Section 2 point to the need to explore an alternative approach for involving stakeholders in environmental policy making, which focuses on wide-ranging and open deliberation that is unconstrained by the need to reach agreement, in order to see to what extent the limits of consensus building occur and are possibly dealt with. The case at hand is a stakeholder dialogue effort in the Netherlands in the arena of climate change. It concerns the Dutch project Climate OptiOns for the Long term (COOL).[2] This project forms a suitable case for a number of reasons. The first reason is that the project's methodology, and the assumptions on which it was based, have been extensively prepared and documented (see e.g. Berk et al., 1999; Tuinstra et al., 2002). A second reason is that the 'deliberative character' of the project has been thoroughly evaluated by both the participants and the researchers who conducted the project (Van de Kerkhof, 2004; Hisschemöller and Mol, 2002). The extended preparation, documentation, and evaluation of the project allows for the investigation of a large amount of data, which is often not possible in many other dialogue cases. The COOL case is appropriate for a third reason, which is that the project has been well received in the international environmental research community (see e.g. Toth, 2002; Van Asselt and Rijkens-Klomp, 2002; Siebenhühner, 2004). This could be seen as recognition of the project's approach, which makes it worthwhile to study in more depth.

The COOL case

The COOL project is a stakeholder dialogue process that aimed to develop strategic notions for long-term climate policy. More specifically, the goal of the dialogue was to explore how drastic reductions of greenhouse gas (GHG) emissions in the Netherlands could be achieved in the long term, in a European and global context. The project included four stakeholder groups, representing four sectors of the Dutch economy: industry and energy; agriculture and nutrition; housing and construction; and traffic and transport. The outcomes of the stakeholder dialogue were advisory to officials in Dutch government who were responsible for environmental and energy policy.

The COOL project followed a 'what if' approach: What will be needed if the emissions of GHGs have to be reduced drastically? What kinds of options need to be implemented, what

[2] The COOL project took place from January 1999 until May 2001 and was financed by the National Research Program on Global Air Pollution and Climate Change. The project included three dialogue projects, taking place at three different geographical levels: national (Dutch) (Hisschemöller et al., 2002a, 2002b), European (Andersson et al., 2002) and global (Berk et al., 2001). This article only reports on the experience of the National Dialogue which was evaluated and analysed both during the project and in the two years after the project as a part of a PhD project (Van de Kerkhof, 2004).

are the roles of the involved actors, and what kinds of policies are required? The organizing team formulated the working hypothesis of a GHG emission reduction of 80 percent by 2050, compared with 1990 levels, in the Netherlands and Europe, and a related percentage for global reductions. The choice of 80 percent was based on the ultimate goal of international climate policy to stabilize GHG concentrations in the atmosphere at such a level, and within such a time frame, that no dangerous interference with the climate system would occur. The participants in the dialogue were not asked to address the issue of whether such an emission reduction would be desirable as a climate policy target. Rather, the dialogue took an 80 percent reduction of GHG emissions in the Netherlands as hypothetical, and the willingness to explore this hypothetical target was a prerequisite for the stakeholders to participate in the project. Subsequently, the participants explored ways to realize an 80 percent emission reduction and, at the end of the dialogue, they gave a reasoned judgment on whether, and how, this could be done.

The COOL dialogues included six workshops per group and two (optional) plenary workshops where the four groups had the opportunity to meet and discuss their results. In the first two workshops (phase one), each group developed two future visions for their own sector in the year 2050. In each vision, 80 percent reduction of GHG emissions had been achieved, but in different contexts. In the third and fourth workshop (phase two), each group selected a number of response options to climate change that looked promising in (one of the) future visions and explored the implementation of these options by means of the method of 'interactive backcasting'.[3] Then, in the last two workshops (phase three), the groups used the repertory grid method to develop criteria for climate policy, and they used the dialectical approach to explore further a number of technological options that in the second phase of the project had turned out to be controversial. Then, at the end of the third phase, the groups integrated the outcomes of the previous workshops so as to develop a strategy for long-term climate policy for their own sector.

Deliberative elements in the COOL design

A number of elements in the design of the COOL dialogues were supposed to shift the groups away from a consensus orientation and to encourage the participants to have an open and deliberative dialogue. The first element relates to the composition of the group. The four groups were put together in such a way that a heterogeneous group of stakeholders was gathered, including representatives from multinationals, small business companies, banks, unions, environmental NGOs, policy makers, et cetera. The identification and selection of these stakeholders had taken place on the basis of an extensive interview round that the organizing team had conducted in the preparation phase of the project with about a hundred stakeholders from different sectors of the Dutch economy. This extensive interview round enabled the organizing team to identify stakeholders from different networks who had rather different views on the issues of climate change and energy and on the 'best' solutions to these issues.

The second deliberative element of the COOL project relates to the design and phasing of the dialogue. The dialogue was designed as a process of divergence and convergence, in

[3] Backcasting, as the opposite of forecasting, refers to a process in which the participants in the COOL dialogues reasoned backwards from the year 2050 to the current situation and explored which interventions would be needed to realize the implementation of a specific option in the context of one of the two future visions. In this exploration, the participants identified milestones to be passed, opportunities to be taken, and obstacles to be overcome along the way (Van de Kerkhof et al., 2002).

which 'divergence' referred to a process of identifying and openly discussing the diversity of opinions in the group, as well as the uncertainties and the information needs; and 'convergence' referred to a process of selecting key issues and exploring to what extent and under what circumstances consensus existed or could be achieved, and to what extent and under which circumstances participants disagreed on specific issues. These two steps in the dialogue design were assumed to prevent the groups from *ex ante* excluding topics and arguments from the discussion.

The third deliberative element concerns the 'rules of the game' that the participants agreed upon to adhere to in the dialogue, and the instructions that the groups received from the organizing team. The participants agreed that they would not allow confusion and an insufficient articulation of differences to persist during the dialogue process, and that they would participate in the dialogue *á titre personnel,* meaning that they were not expected to represent the formal position of their company in the dialogue process. With regard to the instructions of the organizing team, we emphasized that reaching a consensus was not the main objective, that minority viewpoints would also be included, and that it was not necessary to resolve the differences in opinion, as along as the dialogue would be an open process that allowed for exploring and discussing the reasons for these differences and the underlying considerations that stakeholders had.

The fourth deliberative element in the project relates to the input of scientific information. The design of the dialogue was based on the assumption that, in order to stimulate the participants to explore different viewpoints and interests, not only the heterogeneity of the stakeholders should be fully taken into account, but the heterogeneity at the scientific evidence. This meant that the information that was provided to the groups needed to be multidisciplinary, viewing the particular issue from different standpoints. It also meant that the information needed to be transparent about scientific uncertainties and controversies, and about the assumptions on which the information was based. This would allow the groups to have a discussion on these assumptions and to explore the consequences of different assumptions for e.g., the feasibility of a particular option.

The fifth and final deliberative element relates to the four respective methods that were applied in the dialogue: future visions, backcasting, repertory grid, and the dialectical approach. The organizing team had developed two future visions in which rather different contexts were presented in which 80 percent reduction of GHGs had been achieved. The use of two future visions, rather than one, was assumed to encourage the participants to think openly and freely and to consider different possible future developments rather than focus solely on a specific (most desirable, or most realistic) future. Also the use of interactive backcasting aimed to enhance deliberation by stimulating the participants to explore the implementation of various options, in different contexts, and to find out the obstacles and opportunities that might occur 'along the way' when implementing these options. The repertory grid method was used to find out stakeholder preferences for long-term climate policy and, particularly, the differences between these preferences. The method facilitated a systematic comparison of the 'backcasting' options, and the results of this comparison helped to identify policy criteria. The dialectical approach was used to further strengthen the groups' position on a number of options that in the backcasting exercises had turned out to be rather controversial, by articulating the arguments in favor of, and against, these options.

Two deliberative methods to be explored further

It turned out in the COOL dialogues that, despite the deliberative elements in the project design, there was a tendency among the participants to strive for consensus and to avoid

conflict. This may be traced to the Dutch 'polder model' culture of consensus building and negotiation. It may also have to do with other factors, such as the complexity of the dialogue assignment or shortcomings in the dialogue design. The consensus tendency was particularly noticeable in the first phase of the project when the participants did not yet know each other well, and they were uncertain about whether they would be able to jointly fulfill their task and meet the objectives of the project. In some groups, for instance, the participants tended to seek a consensus on the development of one (most desirable or most realistic) future vision rather than two, as was suggested by the organizing team. Also, the participants at some points tried to avoid topics on which there seemed to be different opinions in the group. Examples of such topics were nuclear energy and carbon capture and sequestration (CCS). Also some flaws in the dialogue design enabled the participants to avoid conflict. This was particularly the case in the backcasting exercises, in which the implementation of options was explored in isolation from one another, and the outcomes of the backcasting exercises were not confronted with each other. As a result, many differences in opinion among the participants, and potential inconsistencies, remained implicit.

In order to improve the deliberative process, the organizing team intervened with two specific methods that were not a part of the initial project design but that could be integrated with little interference. This concerned the repertory grid method and the dialectical approach. This section goes into the rationale of both methods and explains why and how they were used in the COOL process.

Repertory grid method

Like Semantic Differential and Q Methodology, the repertory grid method originates from the field of 'construct psychology' (Kelly, 1955). The method has mainly been used in clinical settings but has also found its home in many other areas such as artificial intelligence, education, and human learning. Gradually, the method is gaining ground in the field of environmental policy analysis (see e.g. Van de Kerkhof, 2004; Van der Sluijs et al., 2001; Dunn, 2001). The basic idea of the repertory grid method is that the minds of people are 'construct systems,' which reflect their constant efforts to make sense of the world. These construct systems are highly individual in nature and guide people's behavior. People observe, draw conclusions about patterns of cause and effect, and behave according to those conclusions. Basically, repertory grid aims to unfold categorizations by articulating people's individual construct systems (Kelly, 1955; Fransella et al., 2004; Jankowicz, 2004).

The repertory grid method includes two concepts: 'elements' and 'constructs.' The elements are the objects of people's thinking to which they relate their concepts or values. The constructs are the discriminations that people make to describe the elements in their personal, individual world. An essential characteristic of a construct is that it is *bipolar* (e.g. good – bad, right – wrong). Repertory grid relates the construct of an individual directly to the elements. The procedure can best be characterized by a structured interview in which the respondent is confronted with a triad of elements and is then asked to specify some important way in which two of the elements are alike and thereby different from the third.

In the COOL dialogues, the repertory grid method was used to integrate and compare the results of the individual backcasting exercises so as to elicit the participants' preferences for long-term climate policy. The participants systematically compared the response options to climate change that they had analyzed with interactive backcasting, and they used the outcomes of this to develop criteria for climate policy.

The dialectical approach

The dialectical approach originates from the realm of corporate strategic planning and was formulated by Mason (1969). It starts from the assumption that the way in which we deal with complex problems is largely determined by our (often implicit) worldview and the assumptions on which this worldview is based. The basic idea of the dialectical approach is to reach an argued problem choice by examining an issue completely and logically from two different points of view (Mason and Mitroff, 1981). In the dialectical debate, first, the dominant viewpoint on the issue needs to be identified and understood (the 'thesis'). After that, an alternative viewpoint is formulated (the 'antithesis'). Then, the debate begins, in which the two opposite viewpoints confront each other. The conflict that emerges between the two viewpoints may elicit the assumptions that underlie the different viewpoints and subjects these to a process of deliberation and reflection. The objective of the dialectical approach is that the involved actors understand and learn about the fundamental assumptions that underlie the issue under scrutiny.

In the COOL dialogues a similar approach was used to explore conflicting arguments on the option of carbon capture and sequestration (CCS). In the first and second phase of the dialogue, it had become clear that this option was rather controversial in the sense that, on the one hand, it was expected to contribute significantly to the reduction of GHG emissions, but that on the other hand, the implementation of this option would probably meet with severe problems. The dialectical approach was supposed to increase the understanding of the different arguments on the CCS option and help the groups to make argued choices and recommendations in relation to this option.

Criteria to evaluate the methods

In order to say something reasonable about the extent to which the repertory grid method and the dialectical approach actually encouraged the deliberative process in the COOL dialogues, we use two evaluation criteria: 'differentiation' and 'integration.'[4] *Differentiation* refers to the extent to which the participants discussed a variety of aspects (both technical and normative aspects) in the COOL dialogues. *Integration* refers to the extent to which the participants made argued choices and how they dealt with the interplay of facts, values and principles. Elements of the model of Toulmin (1969, see also Dunn, 1994), on the structure of a policy argument will be relied on to evaluate the lines of reasoning in the dialogue. Such reasoning includes a claim (i.e., the conclusion of an argument), a warrant (i.e., a justification for a claim that is based on either empirical information or normative insights), a backing (which often lies at the root of a warrant and provides an additional reason to accept the claim), and a rebuttal (i.e., a second conclusion that states the conditions under which the original claims is unacceptable or unfeasible).

Results of the COOL dialogues

The discussion here on the repertory grid method considers its use in the industry and energy group; the discussion on the dialectical approach is based on the results of two groups: the industry and energy group and the housing and construction group.

[4] These criteria are borrowed from Hoogerwerf (1990) who developed a set of criteria to evaluate a policy theory. These criteria are: (1) precision of formulation; (2) differentiation; (3) integration; (4) empirical value; and (5) legitimacy. In order to evaluate the degree of deliberation, only differentiation and integration are used here.

Repertory grid: Gaining insight into stakeholder preferences for climate policy

During the third and the fourth workshop of the industry and energy group, the participants had analyzed the implementation of a number of technological options that have the potential to contribute significantly to reducing GHG emissions. It concerned: biomass, combined heat power (CHP), solar photovoltaic, wind energy, carbon capture and storage (CCS), energy efficiency, and hydrogen. These seven options formed the 'elements' in the repertory grid analysis. The repertory grid method was applied in individual phone interviews with the participants and included the following steps. First, the interviewer combined the options into different triads. Second, the interviewer randomly selected three triads of options for each phone interview. Third, the respondent (the participant) was asked to compare each triad. In this connection, he or she contemplated the question: *"In what respect do two of these options equal one another and differ from the third?"* This resulted in one or more constructs that may have steered the respondents' personal observations with regard to the climate change problem and its solutions. Fourth, the respondent specified which pole of the construct he or she considered the most important and the least important with regard to long-term climate policy. Fifth, the respondent ranked all the options according to the specific construct. Then, the previous three steps were repeated for the other two triads of options. After all the respondents were interviewed, the results of the entire group were analyzed and put into a matrix. This matrix included elements, constructs, and rankings and was used by the participants in the workshop to translate the major constructs into criteria for climate policy.

Differentiation: A variety of constructs

Differentiation in the repertory grid analysis refers to the variety of constructs that the participants brought up in the interviews. The average number of constructs that the groups in the COOL dialogues produced was around 14. Table 1 presents the constructs that were produced in the industry and energy group. The constructs relate to different aspects of GHG emission reduction and climate policy, such as: technological (e.g., technical reliability), societal (e.g., societal support), economic (e.g., cost effectiveness), and institutional (e.g., controllability) matters. A number of constructs were mentioned in more than one group, including: cost effectiveness, technological innovation, the level of application of an option (centralized or decentralized), and the position of an option in the chain of products and services (demand or supply side). Apparently, these were important matters in each sector. Towards the end of the phone interviews, few new constructs were mentioned, which likely indicates that the repertory grid method gave a relatively comprehensive overview of constructs that the participants in the COOL dialogues considered relevant for GHG emission reduction and long-term climate policy. The results point to a relatively high degree of differentiation.

Integration: Towards policy criteria

Integration in the repertory grid analysis refers to the extent to which the groups explored different (conflicting) claims and arguments, and made argued choices with regard to criteria for climate policy. In the phone interviews, the respondents were first asked to formulate a specific construct and, after that, they were asked to indicate which pole of the construct they preferred for long-term climate policy. This resulted in a list of preferences, which

Table 1 Constructs produced in the group on industry and energy

High cost effectiveness – low cost effectiveness	Focus on direct CO_2 reduction – energy efficiency
Need for techn. innovation – option already available	Permanent CO_2 reduction – temporary CO_2 reduction
High societal support – low societal support	High innovation potential – low innovation potential
Central level – decentralized level	Secure energy supply – risk of shortages
Supply side – demand side	High spatial constraints – low spatial constraints
Renewable energy – fossil energy	Controllable by government – not controllable
No safety risks – option not fully safe	Need for incentives – no need for incentives
Broadly applicable – limited applicability	Source-oriented – end-of-pipe oriented

were used by the groups to formulate nine policy criteria (see Table 2). From these nine criteria, the groups in the COOL dialogues unanimously concluded that climate policy in the Netherlands should foster options that satisfy the criteria: climate effectiveness, sustainability, social support, and cost effectiveness. Yet, it seemed from the repertory grid analysis that these criteria are not always compatible and may even be in conflict. At this point, the opinions in the dialogue diverged. The participants had different views and expectations with respect to what is feasible and socially acceptable, given the current state of technology.

To illustrate the COOL deliberations on these matters, it is useful to consider an example. The housing and construction group claimed that long-term climate policy should specifically focus on renewable supply options at the level of individual dwellings. The group considered 'sustainability,' 'social support,' and 'consumers' freedom of choice' the most important criteria. The criterion 'cost effectiveness' was subordinate to the criterion 'sustainability' and was defined as the costs per ton of *sustainably-reduced* CO_2. This means that the group only considered an option to be cost effective when it reduced a large amount of CO_2 at relatively low costs *and* in a sustainable manner. A warrant to support the emphasis on renewable options was the expectation that, in the long run, consumers will no longer opt for non-sustainable options, even if these are cheaper. A warrant to support the focus on the level of the individual dwelling was that the implementation of options at this level would increase the consumers' freedom of choice. The group highly valued consumer sovereignty in long-term climate policy and expected that this would become even more important in the future. This criterion could conflict with the criterion for cost effectiveness, as some options will only be cost effective if they are applied on a very large scale (e.g. hydrogen).

In the industry and energy group, other criteria played a role. In particular the criteria 'CO_2 effectiveness,' 'cost effectiveness,' and 'market conformity' led to the claim that long-term climate policy should not focus on a specific technology, but should leave several options open. The main warrant for this was that all the options are needed in order to achieve drastic reductions of GHG emissions (i.e., 80 percent reduction compared to 1990 levels). Also, the group expected that there will be a selection of options by the market mechanism. The rebuttal was that there are specific circumstances, such as safety risks, for which an option should not be applied. However, these criteria can conflict with other criteria that were considered important. For instance, there seems to be a possible conflict between cost effectiveness and sustainability, and between CO_2 effectiveness and innovation potential. Although some of these conflicts were acknowledged, the group did not discuss these further.

In addition to conflicts within the group, there was also a potential conflict between the criteria of the industry and energy group and the housing and construction group. In contrast with the latter group, the group on industry and energy did not include the notion of

Table 2 Criteria for climate policy according to the participants in the COOL dialogues

Climate effectiveness	The extent to which, in the long term, climate policy actually contributes to reducing the emissions of GHGs
Sustainability	The extent to which climate policy contributes to a socially, ecologically, and economically sustainable society in the long term
Social support	The extent to which the different actors in society support long-term climate policy. This implies that climate policy should follow the current developments in the sector concerned and that the consumer should actively be involved in this policy
Cost effectiveness	The extent to which, in a choice between options, the alternative that realizes the highest reductions against the lowest costs will be preferred
Consumers' freedom of choice	The extent to which climate policy increases consumer sovereignty. This is expected to have a positive effect on the social support for climate policy
Governmental/administrative fit	The preference for those options that can be implemented with the current set of instruments in the Netherlands, or that are compatible with European rules
Consistency of governmental policy	The need for resolving the tension that several participants in the dialogue spotted between climate policy and the liberalization of the energy market
Technical reliability	The robustness of options. Some link this criterion to a preference for simple, low-tech options with a long lifetime and which are easy to repair if something goes wrong. The dominant culture has a bias in favor of high tech, yet relatively vulnerable options
Potential for innovation	The capability of an option to generate further sustainable technological innovations. The assumption that underlies this criterion is that large-scale innovations will be needed, since expectations for sustainability of options such as CO_2-storage and biomass are low

sustainability in its definition of cost effectiveness and understood cost effectiveness as the costs per ton of CO_2 reduced. This implies that, in a choice between options, the alternative that realizes the highest reductions at the lowest costs will be preferred. In contrast, according to the housing and construction group, the consumer will choose the sustainable alternative, even if this is more expensive.

The repertory grid method revealed a number of differences and tensions between and within the groups which had so far remained implicit in the dialogue. The repertory grid method unfolded participants' categorizations, articulated personal preferences, and brought to light contradictions in stakeholders' thinking. Even supposedly undisputed facts, such as the definition of demand and supply options, could, on the basis of what the repertory grid analysis revealed, no longer be taken for granted. Observations that were made during the workshops indicate that the capacity of the repertory grid method to reveal inconsistencies was not always welcomed with great enthusiasm, as for some participants it was unclear how to deal with them.[5] The result was that the inconsistencies and tensions were highlighted, but

[5] In that respect, the experience with repertory grid in the COOL dialogues seems to be less positive than the experience in the US (Dunn, 2001). It is likely that the Dutch respondents were suspicious of the open-question format, but it also indicates that the repertory grid method can be rather confrontational.

the organizing team did not always manage to get the groups to discuss these inconsistencies and conflicts further. These results point to a lower degree of integration than the repertory grid method might be capable of.

The dialectical approach: Eliciting arguments pro and con CCS

Basically, the procedure of the dialectical approach in the COOL dialogues required the groups to discuss the CCS[6] option from two opposite points of view. First, the participants were asked to give arguments in favor of the implementation of CCS. After that, they were asked to give arguments against. Then, the participants who were 'against' were asked to explain under which conditions they would be in favor of implementing the option. In a similar vein, the participants who were 'in favor' were asked to explain under which circumstances they would reject CCS. This resulted in two lines of arguments, respectively, in favor of CCS (the thesis), and against CCS (the antithesis). In contrast to a 'real' dialectical debate, at this stage the groups were not asked to confront the different viewpoints with one another nor to deliberate and reflect on these.

Differentiation: A variety of arguments

Differentiation in the dialectical approach refers to the variety of arguments that were produced with regard to CCS. The dialectical approach was applied first to the housing and construction group as this group had categorically rejected this option without clearly arguing why. In order to strengthen their viewpoint, the group was asked to develop arguments both in favor and against CCS. On the basis of the outcomes of the dialectical approach in the housing and construction group, the industry and energy group conducted a similar exercise. The results of both groups are presented in Table 3.

As can be seen from the table, the degree of differentiation in the dialectical approach was relatively high. The groups developed several arguments against CCS along the lines that it was not 'right' to realize drastic reductions of GHG emissions by means of a non-sustainable, end-of-pipe solution. Both groups felt rather strongly about these arguments. In addition, matters such as safety risks and costs played roles as well.

Table 3 also shows that the majority of the arguments in favor of CCS were of a technical kind and related to issues such as the applicability of CCS, the link with other options, and the benefits for oil and gas extraction. Some arguments related to normative matters, for instance, that CCS does not require behavioral change and that it is expected to be a cheap option. These arguments are based on the idea that consumers are not willing to change their behavior so as to adopt more environmentally-friendly lifestyles, and moreover, that they tend to choose the option with the lowest price.

Integration: Conflicting lines of reasoning

Integration in the dialectical approach refers to the extent to which the groups explored different (conflicting) claims and arguments and made argued choices with regard to CCS. The participants in the housing and construction group claimed that their sector does not

[6] CCS is understood here as the capture and underground storage of carbon dioxide (CO_2) in empty gas fields and aquifers. Other applications, such as the storage of CO_2 in the oceans and in coal layers are less relevant for the Netherlands and therefore were not taken into account by the groups.

Table 3 Outcomes of the dialectical approach on the CCS option

Arguments in favor of CCS	Arguments against CCS
CCS is broadly applicable, in that, it can be used for emissions from electricity, gas, but also from biomass energy	CCS elaborates on the current energy infrastructure, whereas there is need for a transition towards a new infrastructure
CCS facilitates the transition towards a hydrogen economy	CCS has a low potential for technological innovation
CCS enables the large-scale implementation of the fuel cell	CCS can cause safety risks for people and the environment
CCS can lead to advantages in oil and gas extraction	Low societal support for CCS
Positive involvement with CCS of the OPEC countries	CCS is not a sustainable, long-term solution
The application of CCS requires little behavioral change	Since the device for catching CO_2 is expensive and uses a lot of energy, the cost effectiveness of the option is rather uncertain
CCS is expected to be a cheap option	In principal, there is resistance to end-of-pipe solutions
In order to drastically reduce GHG emissions, all options are needed, including CCS	Investments in CCS may displace investments in renewable energy options
CCS provides a way to keep nuclear energy out	CCS is the easy way out: over-consumption will simply continue since no behavioral change is required
Since other countries still use a lot of coal, it is useful for the Netherlands to get a technological head start	CCS is not consistent with the precautionary principle
CCS can contribute to the prevention of a drop in the land level that is caused by gas extraction	CCS is a way to avoid solving other problems, such as the need for land for biomass and wind energy production
The available storage space in the Netherlands can be sold or rented to other countries	CCS is often presented as an option that renders renewable energy options irrelevant, but this is not the case

need the CCS option because GHG emissions in the housing and construction sector can be reduced by implementing renewable energy options. Another argument (i.e., a warrant) to support their claim was that CCS is an end-of-pipe solution that does not correspond with the precautionary principle. Also, the implementation of CCS was seen as a way to avoid solving other problems, such as the demand for land that is required for biomass and wind energy, and the need for lifestyle changes. A third warrant that the group put forward was that CCS is often presented as an option that makes renewable energy options redundant, whereas, according to the group, it is crucial to invest in these options. The group also formulated a rebuttal: only if renewable energy options prove insufficient to achieve an 80 percent reduction of GHG emissions can CCS be supported.

On the basis of the outcomes of the dialectical approach of the housing and construction group, the industry and energy group also discussed different arguments in favor of and against CCS. The main claim of this group was that CCS is a serious option for long-term climate policy that can contribute significantly to the reduction of GHG emissions. The group supported their claim by arguing that CCS provides opportunities for promoting the transition towards a hydrogen economy, as it will enable the production of 'CO_2 neutral' hydrogen from

fossil energy sources. Another basis of support was that, in order to drastically reduce GHG emissions, climate policy will not be a matter of 'either . . . or', but of 'as well . . . as.' This means that all the available options will be needed, including the capturing and sequestering of CO_2. Furthermore, CCS is expected to be a relatively cheap option, and the implementation of CCS will not require a change in lifestyle. Notwithstanding these arguments in favor of CCS, the participants also had serious doubts. Therefore, they formulated a number of circumstances ('rebuttals') under which CCS should not be implemented, such as CCS causing unacceptable safety risks for people and for the environment; CCS leading to the neglect of investments in renewable energy options; and the possibility of CCS meeting with strong societal resistance.

The dialectical approach in the housing and construction group and the industry and energy group resulted in two different lines of reasoning on the CCS option. Although both groups had their doubts about the implementation of CCS, they based their viewpoints on different arguments. The lines of reasoning make clear that, whereas in the group on housing and construction the criteria *sustainability* and *societal support* were dominant, in the group on industry and energy the criteria CO_2 *effectiveness*, *cost effectiveness*, and *innovation potential* prevailed.

The two methods compared

The discussion on the outcomes of the repertory grid analysis and the dialectical approach makes clear that in the COOL dialogues both methods led to a better understanding of the important issues in the discussion on GHG reduction, the conflicting viewpoints, and the lines of reasoning that stakeholders use to make sense of policy criteria and options. Whereas the repertory grid method provided views on certain options *in relation to other options*, the dialectical approach provided insight into the line of reasoning with regard to *one particular option*. In that respect, the methods were complementary to one another. The repertory grid method was particularly useful for solving a flaw in the COOL design, as the response options to climate change had been analyzed in isolation from one another and the project design did not provide a mechanism to integrate the backcasting outcomes. The dialectical approach enabled the organizing team to bring CCS back into the discussion of the housing and construction group, as this group had not included the CCS option in the backcasting exercises. The dialectical approach effectively 'forced' the groups to be more explicit about their considerations with regard to CCS and with regard to the conditions under which they would or would not implement this option. Although the methods seem to provide the right stimulus for deliberation, the results also make clear that the deliberative process might have become more profound if the project design had allowed for more reflection, interaction, and comparison of the results between the groups. This would have enabled the groups, for instance, to more thoroughly explore their differences between preferred policy criteria and the consequences of using different criteria for the shaping of climate policy.

Insights from the COOL dialogues

At the end of the COOL dialogues, the broad range of issues, viewpoints, interests and expectations that had come out of the groups and that had been discussed, compared and integrated by means of the repertory grid analysis and the dialectical approach, needed to be 'translated' into an argued set of insights and recommendations for climate policy. The

organizing team wrote a draft report with these insights and recommendations, in which the points of convergence (i.e., the issues on which the groups ultimately agreed on) and the points of divergence (i.e., the issues on which differences remained between and within the groups) were made explicit. This would allow policy makers to see what kinds of policies would garner support from the different groups in the dialogue, what kinds of choices the policy makers needed to make, and it would reveal the drivers of stakeholder support for, or opposition to, particular policies. All the stakeholders who participated in the dialogue received ample opportunity to react to the draft report and to make suggestions for changes. The revised draft of the report was also sent to the participants and after that, the report was finalized.

In their final report, the groups concluded that an 80 percent emission reduction by the year 2050 is imaginable for the Netherlands, but there were considerable doubts as to whether these reductions would be possible without causing or aggravating problems other than climate change in the Netherlands or elsewhere. This led to the conclusion that an 80 percent reduction may come into reach for the Netherlands in a socially acceptable manner if, in addition to overcoming many social, institutional and psychological obstacles major technological breakthroughs in specific areas are also achieved. The Dutch and the other European governments must take a leading role in this respect, but the participants doubted whether this would come to pass.

In addition, the groups concluded that there are a number of options – CCS, biomass, solar photovoltaic, wind energy, and energy efficiency – that were considered crucial for achieving significant GHG emission reductions, but that were nevertheless controversial. For each of these options, the dialogue made clear under what conditions the implementation of these options should proceed and what kinds of problems can be expected (for further details, see Hisschemöller et al., 2002a,b).

As well as, and connected with, the issue of the technological feasibility of an 80 percent reduction of GHG emissions in a socially acceptable way, the groups articulated a variety of views with respect to the institutions and instruments needed to realize drastic reductions. Are market instruments and institutions, especially an emissions trading regime, appropriate, given the necessity of major technological breakthroughs and major changes to infrastructure? Can the Dutch government and the other European governments make a difference in an era of liberalizing energy markets? The COOL dialogues observed that, as an impact of liberalization, governments and big companies, are making too few investments in needed research. Some, however, expected that, after some time, the shift from regulatory towards market instruments, especially the introduction of a system of tradable emission permits, would generate the technological innovation needed. Others had doubts here and put forward the view that government, and not the market, is the institution capable of safeguarding long-term needs. The COOL dialogues made clear that institutional choice, by definition, implies technological choice (see also Hisschemöller, 2003). This issue cannot be avoided by proclaiming that technology choice is left to the market, since the choice for the market already implies that some selection of technologies take place. The notion that as many options as possible will be taken into account for as long as possible is no less untenable. The COOL dialogues revealed that, even then, particular choices with respect to institutions and technologies are unavoidable.

Conclusion and reflection

It is only possible to speculate to what extent the deliberative design of the COOL dialogues prevented the constraints of consensus building, as we did not conduct a parallel dialogue

in the form of a consensus-building exercise. Nevertheless, it is useful to consider whether the constraints of consensus building did play at least some role in the COOL dialogues. The first constraint, which is that it leads to a bias in the selection of participants as it may discourage skeptical participants from joining the discussion, has hardly played a role in the COOL dialogues. The choice for a 'what if' approach, in which the working hypothesis of 80 percent reduction of GHG emissions was taken as a starting point for the discussion rather than as a fixed target that participants had to commit to, facilitated the dialogue, as even the climate-skeptical stakeholders were willing to participate.

The second constraint of consensus building, which is that an exercise with a consensus orientation will tend to focus on the most tractable problems, initially did occur in the COOL dialogue. Despite the heterogeneous group composition, the rules of the game that the participants complied with, and the use of two future visions (rather than one) and interactive backcasting to encourage the development of a variety of options, the groups nevertheless avoided discussing a number of issues, like nuclear energy and CCS. It seemed that the stakeholders initially preferred to ignore the options that they disliked rather than to openly discuss them. The organizing team needed to intervene with the dialectical approach in order to facilitate a discussion on the different arguments in favor of and against these options.

The third constraint is that the outcomes of a consensus process rely on an agreement over imprecise or general principles rather than concrete operational results, and that they will reflect the lowest common denominator. To what extent the COOL dialogues managed to avoid imprecise results and generality and instead, actually produce new and useful insights for policy can be determined by comparing the outcomes of the COOL dialogues and the outcomes of national and international publications in the field of climate change and energy issues (see Van de Kerkhof, 2004).[7] This comparison shows that the COOL dialogues did not discover new technological options, and that the technological pathways to implement these options can also be found in existing scientific and policy documents. However, the COOL dialogues did reveal a number of findings in relation to specific options that may not correspond with the dominant viewpoints in established networks on climate change, e.g., on the high potential of peat lands as sinks for greenhouse gases; and on the expectation that solar photovoltaics, particularly in the housing sector, can be implemented in a cost effective way and with a much earlier payback than is typically deemed feasible. Also, the optimism about the technological feasibility of drastic reductions of GHG emissions became more nuanced in the COOL dialogues when the participants expressed serious doubts about the feasibility of these reductions without causing or aggravating other problems. Another issue is the conventional emphasis on cost effectiveness, whereas the COOL dialogues indicate that other criteria are as least as important and, even more interestingly, that these criteria may conflict with one another for many important response options. Although it is possible to 'let a thousand flowers bloom' as many reports suggest, the COOL dialogues make clear that choices cannot be avoided. Also the need for institutional choice is a resonant theme in the COOL dialogues and is certainly relevant for policy makers to explore.

The last constraint mentioned in Section 2 of this article is that a consensus orientation will not work in problem situations in which the participants in the dialogue have different axioms, assumptions and concepts regarding a certain issue. The COOL case shows that in a deliberative design, these differences can be handled more effectively. In the COOL dialogues,

[7]Two reports were taken into account; in particular the Third Assessment Report of Working Group III of the IPCC (2001) and the report of the Dutch Energy Policy-Analysis Group (Bezinningsgroep Energiebeleid 2000) which is an independent collaboration of energy experts from science, industry, NGOS, services, advisory bodies, government and politics.

a group of stakeholders was assembled who had heterogeneous interests, backgrounds, and viewpoints, but who shared a willingness to explore the possibility of 80 percent reduction of GHG emissions by the year 2050. This created a common ground for discussion. This, together with an open dialogue design in which no one felt forced into a consensus, and in which everyone was stimulated to bring conflicting opinions, minority viewpoints, et cetera, led to an atmosphere in which the participants dealt with their differences and made explicit their points of agreement and disagreement.

Although there are still many ways to improve the deliberative design of the COOL dialogues, compared with a consensus approach, a deliberation approach can actually improve the usefulness of stakeholder dialogues, as it can enable policy makers to deal with potential conflict in an early stage and to make argued choices for specific policies and measures. The experience of the COOL dialogues seems to suggest, though, that Dutch policy makers are a bit reluctant to actually use the outcomes of such dialogue processes. Although they did financially support the COOL dialogues, they seemed to be reticent to use the outcomes of the dialogues as an input for policy making, particularly where the outcomes of the dialogues were not in line with their own ideas and plans. They mainly perceived the COOL dialogues as a communication tool, to educate the stakeholders on different technological aspects of GHG emission reduction, rather than a process that produces useful insights for policy making. Although that may be a bit disappointing, it should not prevent us from using deliberative dialogues, as effective long-term policy strategies must find ways to deal with stakeholders' contradictory impressions, and with their observed doubts and divergent opinions.

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